



Immunization Program

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Is it anticipated that supplies of Hib-containing vaccine will be sufficient in the near future to allow for active recall of children for whom the booster dose was deferred?

CDC does not recommend active recall for children for whom the booster dose was deferred until supplies of Hib vaccine improve.

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Types of Certified Calibrated Thermometers

To ensure that refrigerators and freezers are maintaining the proper temperatures for vaccine storage, each compartment should have a certified calibrated thermometer and the temperature should be checked at least twice each day. Several types of thermometers can be used to monitor the temperatures within vaccine storage units.

[Click here for full story.](#)

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Program Announcements

Help Us Improve the E-Letter!

Please take the Immunization E-Letter survey at

http://www.surveymonkey.com/s.aspxsm=IMx9ApK5v6rwPGTu1o7cHA_3d_3d. Your feedback will help us continue to improve the quality and content of the Immunization E-Letter.

New Immunization Program Deputy Director

Penny Lewis, CHIRP Project Manager has been promoted to Deputy Director of the Immunization program. Her duties will continue to include managing the immunization registry and vaccines. Congratulations, Penny!

Order Form Clarification

Some clarification on filling out your VFC order form. **Column 1.** Put in the number of doses of each vaccine you will need for 30 days. **Column 2.** Put the doses on hand of any of the listed vaccines you have in stock, whether you are ordering that vaccine or not. **Column 3.** Put the number of doses that you administered of any of the listed vaccines whether you are ordering that vaccine or not. **Column 4.** Enter doses up to 5 of any listed vaccine that was wasted during the administration process or accidentally. Bigger losses should be recorded on an incident report (example: left out of fridge, power outages etc.) If you need help please contact our vaccine ordering staff at (800) 701-0704.

If you are having problems faxing your tally sheets to VFC, please try again later. We are experiencing technical difficulties. Sorry for the inconvenience.

Delegation Of Authority Update

We now have 67 Indiana counties with signed DOA to vaccinate underinsured children! Thank you to the LHDs, RHCs, and FQHCs who have allowed us to expand coverage to our underinsured children. If you are a LHD without DOA and you would like more information, please call your ISDH representative, or Joan Duwve, MD, MPH, ISDH Medical Director at (317) 233-7164.

Hib Return to Booster Q & A – for Providers

Is it anticipated that supplies of Hib-containing vaccine will be sufficient in the near future to allow for active recall of children for whom the booster dose was deferred? CDC does not recommend active recall for children for whom the booster dose was deferred until supplies of Hib vaccine improve. CDC recommends that children older than age 15 months for whom the booster dose was deferred receive the booster dose when they are next seen in the office for a routinely scheduled or sick visit. If additional Hib-containing vaccine becomes available to support active recall, CDC will communicate this information broadly with partners and providers.

Is there any guidance about completing the HepB vaccine series in settings where Pentacel (DTaP-IPV-Hib) is being used for the Hib series? Providers who are using Pentacel for the Hib series should use monovalent HepB vaccine to complete the HepB vaccine series. This will minimize extra-immunization. Providers will need to plan ahead to ensure they have adequate doses of HepB vaccine on hand. For more guidance about completing the HepB vaccine series, taking into account the mother's hepatitis B surface antigen status (HBsAg) and vaccine availability, please refer to <http://www.cdc.gov/vaccines/vac-gen/shortages/downloads/eo-hib-hepb-cov.pdf>.

What are the different Hib vaccine products currently available and for what ages are they recommended for use? Hib vaccines products that are available include sanofi's monovalent Hib vaccine (ActHib) and the combination product DTaP-IPV/Hib (Pentacel). These two products are recommended for ages 2 months, 4 months, 6 months, and 12-15 months. Note that for providers who serve predominantly American Indian/Alaska Native (AI/AN) children living in AI/AN communities, the Merck monovalent Hib vaccine, PedvaxHib, has been available through the states' immunization programs from the VFC Pediatric Vaccine Stockpile. These providers should continue to stock and use PRP-OMP – containing Hib vaccines (PedvaxHib and Comvax) and vaccinate according to the routinely recommended schedule.

Can the Hib “booster” dose refer to either the third or the fourth dose of Hib-containing vaccine? Yes. If for a given child a provider has used a sanofi product (either monovalent ActHib or combination vaccine Pentacel) for any of the doses in the series at the recommended ages, a total of 4 doses is needed (3 primary doses in the first year of life and 1 booster dose in the second year of life). If for a given child the provider has restricted use to Merck's monovalent Hib product (PedvaxHib) or the combination product HepB-Hib (Comvax) for age appropriate doses, the total number of doses in this series is three (2 primary doses and 1 booster dose). If a child has fallen behind in the series of Hib vaccine, fewer doses are required to complete the series regardless of the previous brand used. See Table 1 catch up at: http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5751a5.htm?s_cid=mm5751a5_e

What is the current recommendation for children at increased risk for Hib disease, and has this recommendation changed? There has been no change in the recommendation for children at increased risk for Hib disease. Throughout the shortage—during which deferral of the booster dose was recommended for most children, those children at increased risk for Hib disease have specifically been recommended to continue to receive the complete series of Hib vaccine (including the primary series and booster). Children at increased risk for Hib disease include those with asplenia, sickle cell disease, and human immunodeficiency virus infection and certain other immunodeficiency syndromes, and malignant neoplasms. In addition, some groups at particular risk of invasive Hib disease (i.e., American Indians/Alaska Natives) have been recommended to receive remaining doses of Merck's Hib vaccine, which is available from the VFC Pediatric Vaccine Stockpile. This recommendation has not changed.

If a Hib-containing combination vaccine is the only product available to a practice to bring a child up-to-date for Hib, but the child is already up-to-date for the other vaccines in the combination, is it safe to administer the combination vaccine? Providers should plan ahead so that adequate supplies of the appropriate products are available at the time of the child's visit and that extra-immunization is minimized. However, if Pentacel (that is, the sanofi combination product DTaP-IPV/Hib) is the only Hib-containing vaccine available, this product should be used to complete the Hib vaccination series, even if the child has already received all the necessary doses of DTaP and IPV. Studies suggest that extra DTaP can lead to an increase in local reactogenicity (e.g., sore arm).

Vaccine Spotlight: Pneumococcal Vaccines

Pneumococcal Conjugate Vaccine

- Brand Name: Prevnar[®] (PCV7) Wyeth
- Single Dose Syringe; Intramuscular (IM) administration
- CHIRP Documentation: Pneumococcal (PCV7)

Schedule and Recommendations

- The primary series beginning in infancy consists of three doses routinely given at 2, 4, and 6 months of age. A fourth (booster) dose is recommended at 12–15 months of age.

Intervals between doses

- For children vaccinated at younger than 12 months of age, the minimum interval between doses is 4 weeks.
 - Doses given at 12 months of age and older should be separated by at least 8 weeks.
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Vaccine Spotlight: Pneumococcal Vaccines (cont.)

Catch Up Schedule

Unvaccinated children 7 months of age and older do not require a full series of four doses.

- Unvaccinated children aged 7 through 11 months should receive two doses of vaccine at least 4 weeks apart, followed by a booster dose at age 12 through 15 months.
- Unvaccinated children aged 12 through 23 months should receive two doses of vaccine, at least 8 weeks apart.
- Previously unvaccinated healthy children 24 through 59 months of age should receive a single dose of PCV7.
- Unvaccinated children 24 through 59 months of age with sickle cell disease, asplenia, HIV infection, chronic illness, cochlear implant, or immunocompromising conditions should receive two doses of PCV7 separated by at least 8 weeks.

PCV7 is not *routinely* recommended for persons older than 59 months of age.

- Children 24 through 59 months of age who have already received PPSV23 and who are at high risk of invasive pneumococcal disease (sickle cell disease, asplenia, cochlear implant, HIV infection or other immunocompromising conditions or chronic diseases) should receive two doses of PCV7 separated by at least 8 weeks.
- The first dose of PCV7 should be given no sooner than 2 months after PPSV23.
- Children 24 through 59 months of age who have already received one or more doses of PCV7 and who are at high risk of invasive pneumococcal disease should receive one dose of PPSV23.
- PPSV23 should be given no sooner than 2 months after the last dose of PCV7.
- Revaccination is recommended for persons 2 years of age and older who are at highest risk for serious pneumococcal infection and for those who are likely to have a rapid decline in pneumococcal antibody levels.
- Only one PPSV23 revaccination dose is recommended for high-risk persons.
- The second dose should be administered 5 or more years after the first dose.
- Revaccination 3 years after the previous dose may be considered for children at highest risk for severe pneumococcal infection who would be 10 years of age or less at the time of revaccination, including children who received PCV7.

Pneumococcal Polysaccharide Vaccine

- Brand Name: Pneumovax 23[®] (PPSV23) Merck
- Single Dose Vial, Single Dose Syringe, or 5 Dose Vial; Intramuscular (IM) or Subcutaneous (SC) administration
- CHIRP documentation: Pneumococcal (PPV23)

Schedule and Recommendations

- Routine vaccination of one dose for adults age 65 years and older
- Adults 19 years of age and older who are smokers
- Adults 19 years of age and older with asthma
- Persons 2 years of age and older with Chronic illness; Anatomic or functional asplenia; Immunocompromised (disease, chemotherapy, steroids); HIV infection; Environments or settings with increased risk; or Cochlear implant

Revaccination/Additional doses

- Routine revaccination of immunocompetent persons previously vaccinated with PPSV23 is not recommended.
- Persons aged 65 years and older should be administered a second dose of pneumococcal vaccine if they received the vaccine more than 5 years previously, and were younger than 65 years of age at the time of the first dose.

Contraindications & Precautions

For both pneumococcal polysaccharide and conjugate vaccines:

- a severe allergic reaction (anaphylaxis) to a vaccine component or following a prior dose is a contraindication to further doses of vaccine.
- Persons with moderate or severe acute illness should not be vaccinated until their condition improves.
- Women who are at high risk of pneumococcal disease and who are candidates
- for pneumococcal vaccine should be vaccinated before pregnancy, if possible.

Storage & Handling

- PPSV23 and PCV7 should be stored at refrigerator temperature (35°–46°F[2°–8°C])
- **Do not Freeze!**
- Opened multi-dose vials of PPSV23 may be used until the expiration date printed on the package if they are not visibly contaminated.

For more information on pneumococcal vaccines, please see ACIP Recommendations available at www.cdc.gov/mmwr.

How to Use CHIRP in Recalling PPD (TB Test) Due Dates

1. **Go to>** Reports> Report Module.
 2. **Select>** Patient Detail Report.
 3. At the top of the report form you will see the radio button with 2 selections: By Ownership or By Service. By Ownership defines the patients in CHIRP that are in your facilities ownership only. By Service defines the patients in CHIRP that your facility has given an immunization to and recorded that immunization in CHIRP during the time period you will specify you are looking for. **Select>** By Ownership or By Service
 4. **Identify** the date range for which you are wanting to see information.
 5. As we move on down the report from you will see options for date of birth (in this illustration we will skip this field).
 6. If your organization has multiple facilities you will need to identify which facility you want the information from.
 7. **Skip** to Inactive Status. CHIRP will automatically include Active and Inactive patients
 8. **Go to>** Vaccine. This is the dropdown window with the list of vaccines.
 9. **Select>** PPD Test. This will display a list of all persons that have received a PPD Test during the time period you have specified in the from and to date field.
 10. Below Vaccine you will see Lot Number. If you are keeping your vaccine inventory in the CHIRP system, you are able to identify a specific lot number to identify who received that lot number of PPD or an identified vaccine. This will restrict your information to that specific lot number.
 11. **Skip** down the report form to Sort By. Here you can identify the list organization by Last Name or by Date of the immunization or PPD.
 12. **Select>** Create Report.
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Types of Certified Calibrated Thermometers

The use of trade names and commercial sources in this section is for identification only, and does not imply endorsement by the U.S. Department of Health and Human Services (DHHS), the U.S. Public Health Service (PHS), or the Centers for Disease Control and Prevention (CDC). Individual projects and state health department immunization programs may have specific requirements for providers who receive public vaccine. Please refer to the ISDH Immunization Program Refrigerator/Freezer for Vaccine Storage policy at https://chirp.in.gov/chirp_files/docs/II-02%20Refrigerator-Freezer%20Policy%20Final%202-18-09%20Rev.pdf and the Vaccine Cold Chain Failure policy at https://chirp.in.gov/chirp_files/docs/II-09%20Cold%20Chain%20Failure%20Policy%20Final%202-18-09%20Rev.pdf

To ensure that refrigerators and freezers are maintaining the proper temperatures for vaccine storage, each compartment should have a certified calibrated thermometer and the temperature should be checked at least twice each day. Several types of thermometers can be used to monitor the temperatures within vaccine storage units.

Any of the various types of thermometers are adequate for monitoring temperatures inside vaccine storage units. However, thermometers that provide continuous recording or minimum/maximum temperatures are preferred because they are the best indicators of temperature fluctuations outside of the recommended ranges. Out-of-range temperatures require **immediate action**.

Fluid-Filled Biosafe Liquid Thermometers

Fluid-filled biosafe liquid (bottle) thermometers consist of two parts. The first part is a glass sensing bulb connected to a glass tube with a numbered scale printed along the tube. Inside the tube is a liquid (usually mercury or colored alcohol) that rises and falls as the temperature changes in the immediate area of the sensing bulb. The second part is a bottle containing a biosafe liquid, such as glycol. The glass sensing bulb is immersed in the liquid. The liquid provides a buffer around the sensing bulb so that the reading does not fluctuate when the refrigerator or freezer door is opened or closed. Fluid-filled biosafe liquid thermometers are available in refrigerator models and in freezer models. Care should be taken to obtain a thermometer with the appropriate temperature scale for refrigerator and freezer compartments. Some models may come with a magnet designed to attach the thermometer to the refrigerator or freezer wall. This is not the correct placement for a thermometer used in vaccine storage. Place the thermometer centrally in the compartment, with the vaccine.

Fluid-filled biosafe liquid thermometers can be difficult to read. When reading the thermometer, it should be vertical and your eyes should be level with the top of the liquid in the glass tube. The position of the top of the liquid along the scale indicates the temperature. These thermometers only indicate the temperature at the time they are read. They do not indicate temperature changes over time or the minimum/ maximum temperatures achieved. Therefore, temperature fluctuations outside the recommended range might not be detected. Fluid-filled biosafe liquid thermometers may be rendered inaccurate if the liquid column separates. This may be correctable; consult the manufacturer for detailed instructions for reuniting the liquid column.

Types of Certified Calibrated Thermometers (cont.)

Bi-Metal Stem Thermometers

Bi-metal stem thermometers are typically circular in shape with a needle anchored in the center that points to one or two numbered scales (Fahrenheit and/or Celsius) located around the perimeter of the dial. The temperature is indicated by where the needle points on the scale. These thermometers may be difficult to read. When reading the thermometer, it should be vertical and your eyes should be level with the center of the dial. Certified bi-metal stem thermometers are quite accurate, but they only indicate the temperature at the time they are read. They do not indicate the changes in temperature over time or the minimum/maximum temperatures achieved. Therefore, temperature fluctuations outside the recommended range may not be detected.

Minimum/Maximum Thermometers

Minimum/maximum thermometers are available in fluid-filled and digital forms. The fluid-filled types may be difficult to read. Digital thermometers are easier to read. Minimum/ maximum thermometers show the current temperature and the minimum and maximum temperatures achieved. Temperature fluctuations outside the recommended range can be detected by referring to the minimum and maximum temperature readings.

Digital Thermometers

Digital thermometers have a screen in which the temperature is displayed in Fahrenheit and/or Celsius. Some have optional features, including a display of the minimum and maximum temperatures, a temperature alarm that can be set to ring at a specified temperature, and a temperature probe.

Some digital thermometers have two components: a display that mounts to the outside of the unit and a probe on a cord (usually 3 to 10 feet long) that is placed inside the unit. This arrangement allows the temperature to be read without opening the door of the storage unit. Some of these thermometers have audible alarms that ring outside the storage unit. However, alarms that ring inside the unit should not be relied upon since they may not be heard.

Probes are available in two forms: a standard probe and a biosafe liquid-encased probe. Probes should be placed in the center of the compartment. Standard probes should be suspended. Digital thermometers are easy to read because they display a number indicating the temperature and do not require interpretation. These thermometers show the current temperature (and the minimum and maximum temperatures achieved if that option is available). Temperature fluctuations outside the recommended range can be detected by referring to the minimum and maximum temperature readings if that option is available.

Chart Recorders

Chart recorders consist of a graph wheel with replaceable graph paper and ink pens. The pens mark the temperature on the graph paper as the wheel turns. Temperatures are recorded continuously, 24 hours a day. The graph paper has a Fahrenheit or Celsius scale on it and the temperature is read where the ink line falls on the scale. The graph paper must be changed when it completes a full circle, usually weekly. Record the date on the graph paper when it is fitted, and when you remove/change the graph paper. Keep old graphs as a permanent record of the performance of the vaccine storage unit. As with other thermometers, temperature readings should be checked and recorded at least twice each day and monitored to see if the temperatures are out of range.

Some chart recorders may have a digital display showing a current temperature; however, this display may use a different temperature sensor than the recording pen. The reading from the digital display may vary by several degrees from the reading on the graphing wheel. **In a certified chart recorder, the certification applies only to the temperature sensor used by the recording pen.** When checking and recording temperatures, only the reading from the graphing wheel should be recorded. Some chart recorders have temperature probes. Probes are available in two forms: a standard probe and a biosafe liquid-encased probe. Probes should be placed in the center of the compartment. Standard probes should be suspended.

Chart recorders are more difficult to read than digital thermometers because they require interpretation of the temperature graph. These are the only thermometers that record the current temperature, the minimum and maximum temperatures, and the continuous changes in temperature through time. Temperature fluctuations outside the recommended ranges can be detected by referring to the minimum and maximum temperature readings. Out-of-range temperatures require **immediate action**.

Digital Data Loggers

Digital data loggers are sometimes used to record temperatures in vaccine storage units. These miniature, battery-operated, electronic devices may be programmed to record temperatures at intervals throughout the day, with the frequency of reading set by the user. Data loggers are capable of recording hundreds or even thousands of individual temperature readings.

Digital data loggers used in vaccine storage are accompanied by special software that is installed in a computer. This software allows the user to set the frequency of the temperature readings, download data from the device, and calculate temperature averages, minimums, and maximums. In order to review the temperature history, the user must download data from the digital data logger on a regular basis. When digital data loggers are used in vaccine storage, temperatures must still be manually checked and recorded twice a day. A second certified thermometer may be used for these manual temperature checks.

Types of Certified Calibrated Thermometers (cont.)

Digital data loggers may have a variety of features in addition to their basic recording function. Some digital data loggers have digital displays showing the current temperature. This display may not use the same temperature sensor as the recorder. Some data loggers may have an audible alarm to alert the user to out-of-range temperature conditions. Other data loggers may have external lights that alert the user to out-of-range temperature events; a green light indicates that temperatures have remained in range and a red light indicates an inappropriate temperature occurred. If a data logger's alarm activates, or a red light is displayed, **immediate action** should be taken.

Other Thermometers—NOT RECOMMENDED

Uncertified liquid (mercury or alcohol) thermometers and uncertified dial-type household refrigerator/freezer thermometers should not be used. These thermometers are not accurate enough to risk losing expensive vaccine. **Do not use thermometers that are not certified calibrated thermometers.** Generally, thermometers obtained in hardware and appliance stores are not certified instruments and are designed to monitor temperatures for domestic food storage.

Excerpt from the CDC Vaccine Storage & Handling Toolkit. Full S&H Toolkit can be downloaded at http://www2a.cdc.gov/vaccines/ed/sh toolkit/pages/storage_equipment.htm.

Upcoming Events

July 17, 2009; 9:30am - 11:30am; CHIRP User Group Meeting

Hendricks Regional Health, Danville, IN

July 17, 2009; 1:30pm - 3:00pm; Introduction to CHIRP Training

Hendricks Regional Health, Danville, IN

August 25-26, 2009

Epidemiology & Vaccine Preventable Disease Training Course

Presented by the Centers for Disease Control & Prevention

Renaissance Hotel, Carmel, IN

Registration information coming soon!

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Categories of Immunization Messages:

E-Alert conveys the highest level of importance; warrants immediate action or attention.

E-Advisory provides important information for a specific incident or situation; may not require immediate action.

E-Update provides updated information regarding an incident or situation; unlikely to require immediate action.

E-Letter traditional newsletter; distributed every other week with new information and educational articles.
